

Utah, much damage resulted to the hay crop. At Tropic, Utah, the heavy rains at the close of the month did considerable damage to late crops, and put roads and bridges in an impassable condition.

#### NEW IRRIGATION PROJECT ON THE COLORADO.

By L. N. JESUNOFFSKY, Section Director.

Within six months actual work of construction will be commenced on the Chuckawalla Dam, across the Colorado River, at a point in Pyramid Canyon, 40 miles north of Needles, Cal.

Mr. A. B. Koebig, of Los Angeles, the engineer in charge of the project, in company with several contractors, has visited the site of the dam, where surveyors are now at work.

Contracts will be let for borings in the bed of the river. This part of the cost will be about \$25,000, and the result will enable the engineers to approximate the cost of the construction of the dam.

The entire work will be under the supervision of A. B. Koebig & Son, engineers for the Chuckawalla Development Co., and engineers of the War Department.

The exact point where this initial dam will be built is known as the Bulls Head site, and the dam will be 140 feet high and 400 feet wide. It will be built of concrete, in the form of what is known as an arch dam, with a gravity section. This powerful bulkhead will hold in reserve 850,000 acre feet of surplus water and will flood Pyramid Canyon northward for a distance of about 65 miles.

This immense volume of water not only will be used to irrigate the Chuckawalla Valley and Palo Verde Mesa, 120 miles away to the south, but from it will be developed electric power to raise the irrigating waters 300 feet above the bed of the Colorado River and cause it to flow over 300,000 acres of now arid land.

The plans include an intake dam and settling reservoir 15 miles above Ehrenberg. From the settling reservoir to the first pumping station is a distance of 8 miles; to the second pumping station, 9 miles; and to the third, 10 miles; and in this distance the water is raised 300 feet to the tablelands to be irrigated. Other plans call for 50 miles of initial canals to distribute the water over the 300,000 acres.

Mr. Koebig estimates that it will consume five years' time to complete the work, which will progress in units of 600 water inches each. The first unit may be finished in two years.

The 300,000 acres of land which it is proposed to irrigate has all been filed upon by desert entrymen, so that by the time the project is completed all will have proved up on their claims and obtained patents from the Government.

According to Mr. R. M. Teague, a heavy citrus grower of San Dimas and president of the Chuckawalla Development Co., the dam will be larger than that built at Roosevelt, Ariz.

The company, which is capitalized at \$10,000,000, was granted permission by Congress, in February last, to construct the dam.